REMARKS

The present response addresses the concerns raised in the Official Action dated August 20, 2004, wherein the Examiner rejected pending claims 1-4, 7, 8, 12, 13 and 22, and objected to claims 14-21 and 23-29. Claims 5, 6, 9-11 and 30 have been allowed. More specifically, claims 1-4, 7, 8, 12 and 13 have been rejected as being anticipated by newly cited Polley et al., US Patent No. 6,363,109, and claim 22 has been rejected as being anticipated by Wu et al., US Patent No. 6,134,273. However the references each fail to make known or obvious the respective claims of the present application, as suggested in the rejection, in so far as the corresponding references fail to make known or obvious each and every feature of the respective claims.

Regarding claim 1, and correspondingly claims 2-4, 7 and 8, which depend therefrom, contrary to the assertions of the Examiner, Polley et al., '109, minimally fails to make known "receiving a reference signal transmitted over each subchannel in said plurality of subchannels within said wideband channel". In attempting to suggest that the reference makes known the same, the Examiner appears to be attempting to equate "probing tones" as being equivalent to a reference signal transmitted over each subchannel. However, the reference fails to teach or suggest that the probing tones are transmitted over each subchannel. It would appear that the probing tones are intended to determine whether a path between the subscriber and the service provider has been completed (see col. 5, lines 25-31), and there is no teaching or suggestion that such a tone is transmitted over each subchannel.

Relative to the alleged support in Aslanis et al., US Patent 5,901,180, which has been referenced by the Examiner, the pilot tone is identified as representing one of the multiple tones (see col. 1, line 63 to col. 2, line 2), which hardly qualifies as a reference signal transmitted over each subchannel.

Contrary, to the Examiner's assertions, neither Polley et al., '109, nor Aslanis et al., '180, make known or obvious, "receiving a reference signal transmitted over each subchannel in said plurality of subchannels within said wideband channel". Consequently, claim 1, and correspondingly claims 2-4, 7 and 8, to the extent that they depend upon claim 1, should be deemed allowable in view of the references being relied upon by the Examiner in support of the rejection.

Additionally, with regards to at least claim 7, the applicants make specific note of the claimed element "iterating said producing and transmitting activities to track changes in said SNR in each subchannel of said plurality of subchannels within said wideband channel", which can allow the claimed invention to accommodate changing channel conditions associated with a dynamic communication environment. More specifically, this element allows the producing of "a modulation profile of said wideband channel" to be iterated (i.e. performed again, and/or repeated), which is then used as the basis for the transmission of OFDM data. Because the alleged teaching fails to provide for the above noted limitation as provided by claim 7, contrary to the assertions of the Examiner Polley et al., '109, additionally fails to make known or obvious claim 7 for at least the above noted reason.

Relative to claims 12 and claim 13 at least to the extent that it depends upon claim 12, the Examiner has failed to allege any teaching in the cited references, which make known or obvious transmission of OFDM data over "more than one user channel" in connection with the wideband channel, where in connection with claim 13 each user channel comprises at least one of said subchannels.

Relative to claim 22, Wu et al., '273, fails to support the rejection of the same, in so far as Wu et al., '273, fails to make known or obvious each and every feature of the claim. More specifically, Wu et al., '273, fails to make known "said OFDM receiver receives said OFDM data in each subchannel within said plurality of subchannels within said wideband channel at one of zero subchannel signal level, an intermediate subchannel signal level, and a maximum subchannel signal level in response to said SNR therein" (emphasis added). Contrary to the Examiner's assertions, zero subchannel signal level is not equivalent to "n=2 QPSK in table 1". QPSK still enables a signal, which can be used to discern a pair of bits, that is contrary to a zero subchannel signal level, which could be used with respect to an otherwise obstructed subchannel. Consequently, contrary to the Examiner's assertions, Wu et al., '273, fails to make known or obvious claim 22.

The applicants note with appreciation, the Examiner's indication that claims 5, 6, 9-11 and 30 are allowed and the indication that claims 14-21 and 23-29 contain allowable subject matter.

The applicant would contend that the claims are in a condition for allowance, and would respectfully request that the Examiner reconsider the rejection of the claims. Should any issues remain unresolved after the consideration of the present response, the Examiner is requested to contact the applicant's representative at the number listed below to discuss the same.

Respectfully submitted,

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